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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,247	10/13/2004	Laimute R Svarcas	3166-01	8880

26645 7590 06/18/2009

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EXAMINER	
VASISTH, VISHAL V	
ART UNIT	**PAPER NUMBER**
1797	
MAIL DATE	**DELIVERY MODE**
06/18/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/511,247	SVARCAS ET AL.	
	Examiner	Art Unit	
	VISHAL VASISTH	1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 May 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5 and 7-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5 and 7-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's amendment of 5/13/2009 amended independent claim 1 and added independent claims 10 and 11 which were also amended after the Advisory Action mailed on 1/29/2009. The amended claims do not overcome the prior art and are discussed below.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1-5 and 7-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blythe, US Patent No. 5,264,005 (hereinafter referred to as Blythe) in view of Chamberlin, III, US Patent No. 6,242,394 (hereinafter referred to as Chamberlin).

Blythe discloses a two-cycle lubricant and method of using the same comprising the following components, a major amount of a fuel lubricant mixture (see Abstract) from 15 to 70 wt% of a fluidizing oil such as natural or synthetic oils (component (a) of claims 1, 10 and 11) (Col. 27/L. 63-64 and claim 54 of Blythe), the reaction product of isostearic acid and tetraethylene pentamine (component (b-1) of claims 1, 10 and 11 and as recited in claims 4-5) (Col. 22/L. 49-58), a Mannich dispersant which is the reaction product of polypropyl-substituted phenol, formaldehyde and an aqueous dimethylamine solution. It is the position of the examiner that a polybutene-substituted phenol would have been envisaged by one of ordinary skill in the art by the disclosure of Blythe wherein polybutene-substituted phenols were used in preparing the dispersants disclosed in Blythe (Col. 19/L. 34-50) (component (b-2) of claims 1, 10 and 11) (Col. 20-21/L. 58-6).

The composition of Blythe further discloses a Stoddard solvent having a kinematic viscosity of .74-1.65 (cSt) at 100°C (within the range as recited in component (c) of claims 1, 10 and 11) (Col. 30/L. 20-23).

The lubricant composition of Blythe discloses the composition comprising from about 2 to about 15% by weight of the product of a isostearic acid and tetraethylenepentamine (which overlaps with about 0.5 to about 5 wt% as recited in component (b-1) of claims 1, 10 and 11) (Col. 22/L. 36-46 and Col. 28/L. 46-49) and from about 0.5 to about 30% by weight of a Mannich dispersant (which overlaps with about 0.5 to about 8 wt% as recited in component (b-2) of claims 1, 10 and 11) which makes the total weight percentage of the two components

between 2.5 wt% to 45 wt% (which overlaps with the claimed range of at least about 3.0 wt% as recited in claims 1, 10 and 11) even if there are no other dispersants present in the composition (Col. 16/L. 5 and Col. 28/L. 39-45 and Col. 30-31/L. 56-10).

The composition of Blythe further provides that the nitrogen content of the condensation product of isostearic acid and a tetraethylene pentamine is 5.9 wt% (Col. 22/L. 55-58) and the nitrogen content of the Mannich dispersant component of the composition is 0.5 wt% nitrogen (Col. 21/L. 6). Assuming no other nitrogen-containing dispersants and based on the concentrations and molecular weights for the two additives discussed above the lubricant composition would have a total nitrogen content that overlaps the range as recited in claims 1, 10 and 11 of about 0.25 to about 0.75 wt% nitrogen.

Blythe discloses a lubricant composition and fuel-lubricant mixture (Col. 28/L. 16-18) wherein the lubricant composition are used in fuels in amounts to release stuck piston rings or increase compression. The lubricant composition is preferably used at a concentration of 4 ounces per gallon of fuel. Based on a conversion of 128 ounces is equal to 1 gallon the ratio of fuel to lubricant would be within the claimed range 10-250:1, therefore the composition of Blythe comprises a major amount of a liquid fuel composition (as recited in claim 7) (Col. 28/L. 26-38).

The finished lubricant composition of Blythe further includes the use of additives such as dispersants other than the components (b-1) and (b-2) as discussed above which include aminophenols (Col. 3-4/L. 19-56) present from

about 5 to about 30% (about 0.5 to about 8 percent by weight of at least one additional dispersant not claimed in claim 1 as recited in claims 2-3) and additional additives such as antioxidants (Col. 30/L. 46-47). Blythe, however, does not explicitly disclose the amount of an aromatic antioxidant present in the composition or lubricating a direct fuel injection two-cycle engine.

Chamberlin discloses a lubricant composition suitable for fuel injected two-stroke cycle engines and method of using the composition to lubricate a direct fuel injected crankcase two-stroke cycle engine (as recited in claims 8-9) (Claim 20 of Chamberlin) comprising, an aminophenol, a Mannich dispersant, and further additives to formulate a finished composition (see Abstract). The additives include pour point depressants, foam inhibitors and 0.5 wt% of a hindered amine antioxidant such as a commercial mixture of p-nonylphenyl-phenylamine and di-p-nonylphenylamine (which is within the range as recited in component (d) of claims 1, 10 and 11) (Col. 28/L. 14-18). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the amount of antioxidant in Chamberlin in the composition of Blythe in order to reduce the oxidation of the oils in the composition and a direct fuel injection allows for less accumulation of unused oil in the crankcase which is recirculated throughout the engine (Col. 24-25/L. 33 of Chamberlin).

Response to Arguments

5. Applicant's arguments filed 5/13/2009 have been fully considered but they are not persuasive.

Applicants argue that Blythe does not teach the combination of dispersants as recited in the present claims. This is not persuasive. Blythe discloses a composition comprising required components (A) and (B). Component (A) can be a Mannich dispersant meeting the limitations of component (b-2). Component (B) is the reaction product of a fatty acid with an amine. Blythe therefore discloses the combination. Attention is also drawn to Example B in Table 1 of Blythe where is Mannich dispersant (product of example 8) is used in combination with a fatty acid/amine product.

Applicants further argue that the present invention provides unexpected results and provide data and a declaration by Dr. Patrick Mosier on 5/13/2009 that allegedly supports the applicant's position. However, the data submitted is not commensurate with the scope of the claims.

Claims 1, 10 and 11 recite 0 to about 45 wt% of a combustible solvent. However, the examples in the declaration only contain 0% of the solvent. The inventive oils use a much greater percentage of the base oil when the solvent is not present and this is not reflected in the data submitted. Furthermore, the name, type, or blend of solvent is not recited in the claims and therefore any solvent having a viscosity of less than 2 mm^2/s would be sufficient to read on the claims.

Claims 1, 10 and 11 give a range of at least 1.5 wt% and 3.0 wt% respectively of all dispersants in the composition components (b-1) and (b-2). In the data submitted by applicant however, the combined amount of components (b-1) and (b-2) is within a much narrower range wherein the amount of

dispersants is present in an amount of at least 10 wt%, and therefore does not demonstrate unexpected results across the full scope of the claim.

Finally, component (b-1) can be many different compounds in claim 1, but the submitted data only shows one type of reaction product, therefore unexpected results have not been shown across the scope of what is claimed.

It is also noted that while some of the examples in the specification comprise Stoddard solvent, these examples have not been compared to the closest prior art (the Blythe reference).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VISHAL VASISTH whose telephone number is (571)270-3716. The examiner can normally be reached on M-R 8:30a-5:30p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571)272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

VVV

/Glenn A Caldarola/
Acting SPE of Art Unit 1797